



705 South River Road  
West Lafayette, IN 47906  
Street / Sanitation / Recycling

Phone: (765) 775-5242  
Fax: (765) 746-1302

April 15, 2011

Memo

TO: Mayor Dennis and West Lafayette Board of Works  
FROM: David A. Downey, Street Commissioner  
RE: Truck Bids Received February 18, 2011, Opened February 22, 2011

The City received truck bids on February 18, 2011 for two new dump trucks; one truck specification for 23,500 lbs. gross vehicle weight (GVW) and one truck specification for 35,000 GVW. Both trucks were to be equipped with snow plows and material spreaders. There was an option to trade two City vehicles.

I ask the Board of Works to reject the bids and to consider bidding a revised specification for two (2) trucks with a GVW of 34,000 lbs equipped with only the plumbing and electrical for snow plows and material spreaders. There would be no trade option. There would be an option to provide snow plows and material spreaders. The result expected from this is a better value for the money.

It is also requested that the Clerk-Treasurer set advertising and bid opening dates.

Thank you for your consideration and patience.

**General:** Specifications for two (2) new 2011 single axle trucks. Gross vehicle weight 34,000 lbs., front axle 18,000 lbs and rear axle 26,000 lbs. Conventional cab with a 10 foot stainless steel dump bed. Central hydraulic system, engine crank powered to run dump bed, material spreader, and snow plow, with all necessary plumbing and wiring. Equipment that is bid pursuant to these specifications shall be of equal quality and size or greater to those referenced and are subject to approval by the purchaser. These are minimum specifications. If any part of an item is not in compliance, an explanation can be provided on a separate sheet with the benefits of that item to the City. It will be up to the purchaser's discretion on what items will be termed equal. Any items not listed on the exception sheet will be assumed to be part of the unit. Bidders must submit with their bid a complete specification on the unit they propose to furnish. Original copies of vehicle specifications and literature must be provided with the bid. Fax copies or unreadable copies of literature or specifications will not be allowed. (Reference within the specs to a brand name or manufacturer's name or specs is for reference only, and may be supplied with an approved substitute of equal or better quality).

Two Options:

- A) 10' stainless steel material spreader with cab controls
- B) 10' highway snow plow with cab controls

#### Minimum Chassis Specifications

**MISSION:**

**Requested GVWR: 34000.** Calc. GVWR: 42020. Calc. Start/Grade Ability: 24.80% / 2.52% @ 55 MPH. Calc. Geared Speed: 66.8 MPH

**DIMENSION:**

**Wheelbase: 160.00, CA: 85.00, Axle to Frame: 63.00**

**ENGINE, DIESEL:**

{MaxxForce9} EPA 10, **330 HP @ 2000 RPM, 950 lb-ft Torque @ 1200 RPM.**

**TRANSMISSION, AUTOMATIC:**

**{Allison 3000\_RDSs\_P} 4<sup>th</sup> Generation Controls; Close Ratio, 6-Speed, With Double Overdrive; On/Off Hwy; Includes Oil Level Sensor, With PTO Provision, Less Retarder, With 80,000-lb GVW & GCW Max. Transmission ECU located inside cab.**

**CLUTCH:**

Omit Item (Clutch & Control)

**AXLE, FRONT NON-DRIVING:**

{Meritor MFS-18-133A} Wide Track, I-Beam Type, **18,000-lb Capacity.**

**ALXE, REAR, SINGLE:**

{Meritor RS-26-185} Single Reduction, Standard Track, **26,000-lb Capacity, R Wheel Ends, Driver Controlled Locking Differential Gear Ratio: 6.14**

**CAB:**

Conventional

**TIRE, FRONT:**

(2) 315/80R22.5 HSU2 481 rev/mile, load range L, 20 ply

**TIRE, REAR:**

(4) 11r22.5 hdr1 495 REV/MILE, LOAD RANGE h, 16 PLY

**SUSPENSION, RR, SPRING, SINGLE:**

Vari-Rate; **31,000-lb Capacity, Includes 4500-lb Capacity Multileaf Auxiliary**

**PAINT:**

**Winter White**

#### Description

**Base Chassis 4X2 with 160.00 Wheelbase, 85.00 CA, and 63.00 Axle to Frame.**

**TOW HOOK, FRONT (2)** Frame Mounted

**TOW HOOK, REAR (2)**

**FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.866" x 3.622" x 0.433" (276.0 mm 92.0 mm x 11.1 mm); 456.0" (11582 mm) Maximum OAL**

**BUMPER, FRONT** Steel, Swept Back

**FRAME EXTENSION, FRONT Integral; 20" In Front of Grille**

**WHEELBASE RANGE 146" (370CM) Through and Including 195" (495cm)**

**AXLE, FRONT NON-DRIVING {Meritor MFS-18-133A} Wide Track, I-Beam Type, 18,000-lb Capacity**

SHOCK ABSORBERS, FRONT

SUSPENSION, FRONT, SPRING Multileaf, Shackle Type; 18,000-lb Capacity; Less Shock Absorbers

BRAKE SYSTEM, AIR Dual System for Straight Truck Applications

BRAKES, FRONT, AIR CAM 16.5" X 6", Includes 24 Sq In Long Stroke Brake Chambers

DRAIN VALVE {Bendix DV-2} Automatic; With Heater; for Air Tank

BRAKE SHOES, REAR Cast

AIR BRAKE ABS {Bendix AntiLock Brake System} Full Vehicle Wheel Control System (4-Channel)

AIR DRYER {Bendix AD-IP} With Heater

BRAKE CHAMBERS, FRONT AXLE {Haldex} 24 Sq In

BRAKE CHAMBERS, REAR AXLE {Haldex GC3030LHDHO} 30/30 Spring Brake

BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0"; Includes 30/30 Sq.In. Long Stroke Brake Chamber and spring Actuated Parking Brake

AIR COMPRESSOR {Bendix Tu-Flo 550} 13.2 CFM Capacity

STEERING COLUMN Tilting

STEERING WHEEL 2-Spoke, 18" Diam., Black

STEERING GEAR (2) {Sheppard M-100/M-80} Dual Power

EXHAUST SYSTEM Single, Horizontal, Aftertreatment Device Frame Mounted Outside Right Rail Under Cab; Includes Vertical Tail Pipe and Guard

ENGINE EXHAUST BRAKE Electronically Activated. **Engine Compression Brake ILO Exhaust**

TAIL PIPE (1) Turnback Type, Non-Bright, for Single Exhaust

EXHAUST HEIGHT 10' 11"

SWITCH FOR EXHAUST 2 Position, Lighted & Latching, ON/OFF Type, Mounted in IP, Inhibits Diesel Particulate Filter Regeneration as Long as Switch is in ON Position

ELECTRICAL SYSTEM 12-Volt, Standard Equipment

POWER SOURCE Cigar Type Receptacle without Plug and Cord

BATTERY TERMINALS Sealed

JUMP START STUD (2) Remote Mounted.

ALTERNATOR {Bosch LH160} Brush Type, 12 Volt 160 Amp. Capacity, Pad Mounted

BODY BUILDER WIRING To Rear of Frame, With Stop, Tail, Turn, and Marker Lights Circuits, Ignition controlled Auxiliary Feed and Ground, Less Trailer Socket

BATTERY SYSTEM {International} Maintenance-Free, (3) 12-Volt 1950CCA Total

RADIO {International} AM/FM Stereo With Weatherband, Clock, Auxiliary Input, Includes Multiple Speakers; **Wire Capability for FM/2-Way Radio**

HORN, AIR Black, Single Trumpet, Air Solenoid Operated

BACK-UP ALARM {Preco 1059} Electronic; Solid State, Dual Function, 112 Db

WINDSHIELD WIPER SPD CONTROL Force Wipers to Slowest Intermittent Speed When Park Brake Set and Wipers Left on for a Predetermined Time

BATTERY DISCONNECT SWITCH {Joseph Pollak} for Cab Power disconnect Switch; Lever Operated, Disconnects Power to PDC, Does Not Disconnect Charging circuits, Cab Mounted

TEST EXTERIOR LIGHTS Pre-Trip Inspection will Cycle all Exterior Lamps Except Back-up Lights

HEADLIGHTS ON W/WIPERS Headlight Will Automatically Turn on if Windshield Wipers are turned on

STARTING MOTOR {Delco Remy 38MT Type 300} 12 volt; less Thermal Over-Crank Protection

INDICATOR, LOW COOLANT LEVEL With Audible Alarm

ALARM, PARKING BRAKE Electric Horn Sounds in Repetitive Manner When Vehicle Park Brake is “NOT” Set, With Ignition “OFF” and any Door Opened

**CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses**

GRILLE Stationary, Chrome

FRONT END Tilting, Fiberglass, With Three Piece Construction; for 2007& 2010 Emissions

PAINT SCHEMATIC, PT-1 Single Color, Design 100

PAINT TYPE Base coat/Clear Coat, 1-2 Tone

PROMOTIONAL PACKAGE Silver Package for use with **Air Brakes**

**Heated Windshield**

OIL FILTER, ENGINE {Hudgins Model 960 Spinner}

**PTO EFFECTS, ENGINE FRONT Less PTO Unit, Includes Adapter Plate on Engine Front Mounted**

**ENGINE, DIESEL EPA 10, 330 HP @ 2000 RPM, 950 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed**

FAN DRIVE {Borg-Warner SA85} Viscous Type, Screw On

RADIATOR Aluminum, Front to Back Cross Flow, Series System; 1588 Sq In Core and 885 Sq In Charge Air Cooler and 470 Sq In Low Temperature Radiator Down Flow, Includes Transmission Oil cooler

FEDERAL EMISSIONS for 2010

AIR CLEANER Dual Element, with Integral Snow Valve and In-Cab control

THROTTLE, HAND CONTROL Engine Speed control for PTO; Electronic, Stationary Pre-Set, Two Speed Settings; Mounted on Steering Wheel

ENGINE CONTROL, REMOTE MOUNTED – No Provision Furnished for Remote Mounted Engine control

BLOCK HEATER, ENGINE {Phillips} 120 Volt/1250 Watt; With “Y” cord From Socket in Standard Location, For a Dealer Installed Oil Pan Heater, With Extended Life Coated Metal/Plastic/Metal Material Oil Pan, for 16

EMISSION COMPLIANCE Federal, Does Not Comply With California clean Air Regulations

**TRANSMISSION, AUTOMATIC {Allison 3000 –RDS\_P}** 4<sup>th</sup> Generation Controls; close Ratio, **6-speed**, With Double Overdrive; On/Off Hwy; Includes Oil Level Sensor, With PTO Provision, Less Retarder, With 80,000-lb GVW & GCW Max.

Transmission shift control {Allison} Push-Button Type; for Allison 3000 & 4000 Series Transmission

**TRANSMISSION OIL Synthetic; 29 thru 42 Pints**

ALLSION SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); General Purpose Trucks, Construction

SHIFT CONTROL PARAMETERS Allison Load Based Shift Schedules (LBSS)

PTO CONTROL, DASH MOUNTED For Customer Provided PTO; Includes Switch, Electric/Air Solenoid, Piping and Wiring

AXLE, REAR, SINGLE {Meritor RS-26-185} Single Reduction, Standard Track, 26,000-lb Capacity, R Wheel Ends, Driver Controlled Locking Differential. Gear Ratio: 6.14

SUSPENSION, RR, SPRING, SINGLE Vari-Rate; **31,000-lb Capacity**, Includes 4500-lb Capacity Multileaf Auxiliary

FUEL/WATER SEPARATOR With Thermostatic Fuel Temperature Controlled Electric Heater, and Filter Restriction/Change Indicator, Includes Standard Equipment Water-in-Fuel Sensor

FUEL TANK Top Draw; D Style, Non Polished Aluminum, 50 U.S. Gal., 189 L Capacity, 16” Tank Depth, With Quick Connect Outlet, Mounted Left Side, Under Cab

CAB Conventional

GRAB HANDLE, cab interior (2) Safety Yellow

GAUGE CLUSTER English With English Electronic Speedometer

GAUGE, OIL TEMP, ALLISON TRAN

GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} With black Bezel Mounted in Instrument Panel

IP CLUSTER DISPLAY Omit Display of Fault Codes in Instrument Cluster and Disable Blink Codes, Requires Service Tool to Retrieve and View Fault Code.

SEAT, DRIVER { National 2000 } Air Suspension, High Back With Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, With 2 Position Front Cushion Adjust, -3 to +14 Degree Angle Back Adjust

SEAT, PASSENGER {National 2000} } Air Suspension, High Back With Integral Headrest, Vinyl, Isolated, 1 Chamber Lumbar, 2 Position Front Cushion Adjust, -3 to +14 Degree Back Adjust

MIRRORS (2) {Lang Mekra} Styled; Rectangular, 7.09" x 15.75" & Integral Convex Both Sides, 102" Inside Spacing, Breakaway Type, Heater Heads Thermostatically Controlled, Power Both Sides, Clearance Lights LED, Bright Finish Heads & Brackets,  
**Heated Hood Mounted Convex Mirrors**

SEAT BELT All Orange; 1 to 3

CAB MOUNTING HEIGHT EFFECTS High Cab in Lieu of Mid High Cab Mounting (Approx. 4.5")

ARM REST, RIGHT, DRIVER SEAT

ARM REST, LEFT, PASSENGER SEAT

AIR CONDITIONER {Bend-Air} With Integral Heater & Defroster

CAB SOUND INSULATION Includes Dash Insulator and Engine cover Insulator

INSTRUMENT PANEL Center Section, Flat Panel

**WINDOW, POWER** (2) And Power Door Locks, Left and Right doors, Includes Express Down Feature

HVAC FRESH AIR FILTER

STORAGE POCKET, DOOR Molded Plastic, Full Width; Mounted on Passenger Door

Minimum Equipment Specifications for Equipment
<b>Body, Hoist, and Lighting:</b>
Body length shall be 10 feet <b>stainless steel</b> dump body complete with class 60 under body hoist.
5.2/6.5 cu yd capacity
Front/side/rear height shall be 51"/24"/30"
7 gauge side and ends with ¼" floor: crossmemberless under structure; 11" tall trapezoidal long sills and ½ cab shield.
Air operated tail gate from inside of cab
FMVSS #108 lights and recessed in rear corners
Light bar on cab roof with LED amber strobe and two plow lights
<b>Hydraulics:</b>
Electronic Manual Spreader Control will utilize Technology to control the variable feed of conveyor
Feed rate knob will accommodate 9 different settings.
Control head will have a power switch with an indicator lamp to provide status on the operation of the controller.
Switch to allow the controller to produce a Blast function with programmable duration and a maintained unload position for unloading the spreader or offering continuous operation during cleaning.
Controller will allow the attachment of a speed pickup to start and stop the Material spreading with vehicle motion.
Wiring harness for the spreader control shall be full factory assembled with Waterproof ends and covered in expanded nylon abrasion sleeve.
Separate fuse to be included into the controller to protect it in the event of a Short circuit deploying the inline fuse included in the installation
Controller shall be mounted in the cab with all hydraulic lines and valving outside of the operator's compartment.
A remote valve control lever with a center detest Sealed heavy-duty bonneted cable with feather touch

All wiring that leaves the cab, such as valve supply and speed pickup, to be secured with rubber covered steel clamps and include a watertight strain relief at the cab exit.
All other related fittings, hoses, oil, etc to provide a complete operable system
All hydraulic lines and controls to operate a rear spreader shall be included.
The PTO will be a cast iron, and constant mesh with pressure lubrication. The PTO will be front mounted to provide Constant power output regardless of converter speed. The PTO will Include a direct mount flange for mounting the hydraulic pump. The pump is to be direct drive from the engine. Frame of the chassis must have extension to provide for mounting. Manufacturer must make necessary radiator accommodations.
Pump will be a gear type double acting pump with a Combination Valve reservoir. The pump will direct mount to the PTO Flange Pump to be a Commercial grade to lift 8 to 10 ton
30 gallon hydraulic tank reservoir with tank filter.
Front and rear coupler station for spreader and plow hook up and disconnects.
<b>Trailer Hitch and Mud Flaps:</b>
Rear trailer hitch to be a 1/2" plate with 2" receiver to be installed on the rear
A combination pintle / 2" ball hitch to be receiver style
Electric brake controller shall be mounted in the cab
Two "D" rings shall be attached to the plate for safety chain attachment
7 wire RV style trailer light plug shall be installed next to hitch plate
Rubber anti-sail mud flaps to be attached to the frame rail in front of rear tires
Rubber mud flaps to be attached to the dump body behind rear tires
<b>Option A</b>
<b>Material Spreader:</b>
The body is to be unpainted 12 gauge 304 stainless steel construction
Sides are to be sloped 45 degrees to ensure free flow of materials
The dimensions are to be 10' length, 44" height, and 50" width
Water level capacity to be approximately 3.9 cubic yards
The spreader top edge to be double crimped on all four sides with four corner lift system
The long sills to be one piece formed with slotted ends for easy removal of drive and idler shafts
The conveyor to be 14" wide with 1/4" x 3/4" crossbars, with a rear door opening of 10" to feed the spinner
Spreader to have built in chain guards to prevent entry of coarse material to the chain links
Spreader to have a cast iron gear box with 20:1 ratio
Both the drive shaft and idler shaft to be 1-1/4", with threaded adjusters with 3" travel, and 6 tooth sprockets
Spinner assembly shall have two internal adjustable baffles, three external baffles, and a 13" diameter poly spinner disc
Spinner shall be supported by a 1" drive shaft mounted to two self aligning, sealed, relubable flange bearings
Spinner assembly to be retained by four bolts for easy removal
Manufacturer shall provide caution labels, decals, and any warnings necessary
Top screens
<b>Option B</b>
<b>Plow:</b>
Plow should be equal to a 10 foot straight plow with universal hitch mount. Plow should have the following equipment:

Plow should be delivered with snow deflector
Smart touch controls
Smart touch attachment system
Full moldboard trip design
Heavy duty push frame and center section
Reinforced moldboard
Cast iron plow shoe
Dual Shock absorbers
Plow shall have a two year warranty
Power reverse and all other necessary equipment.